

Microsoft DevOps Solutions: Designing and Implementing Telemetry

GATHERING AND ALERTING ON AZURE RESOURCE TELEMETRY



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Learning Objectives



Design and implement distributed tracing

Inspect application performance indicators

Inspect infrastructure performance indicators

Define and measure key metrics (CPU, memory, disk, network)

Implement alerts on key metrics (email, SMS, webhooks, Teams/Slack)

Integrate user analytics (e.g., Application Insights funnels, Visual Studio App Center, TestFlight, Google Analytics)



Module Overview

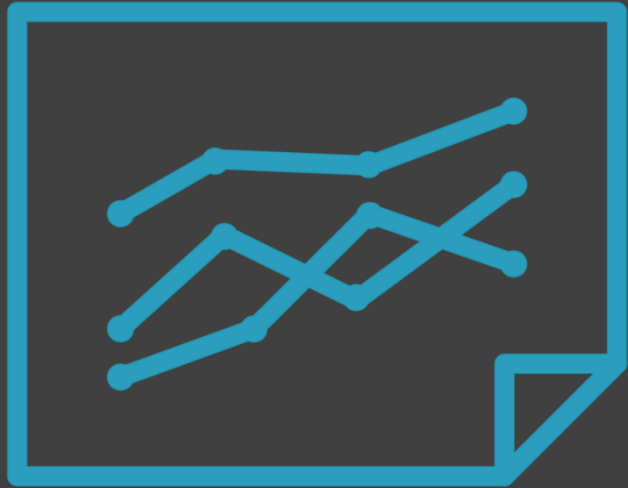


Azure resource metrics

Using Azure Monitor insights

Alerting with Azure Monitor





Good **telemetry** about your application enables good decisions to be made about resource investment.



Azure has numerous metrics based on the various types of resource in addition to services to provide telemetry for your custom code.

Azure Metrics and Logs



Azure has a large number of metrics and logs

These vary by resource type

Azure resource metrics are stored in the native metrics store for 90 days and can optionally be sent to a target

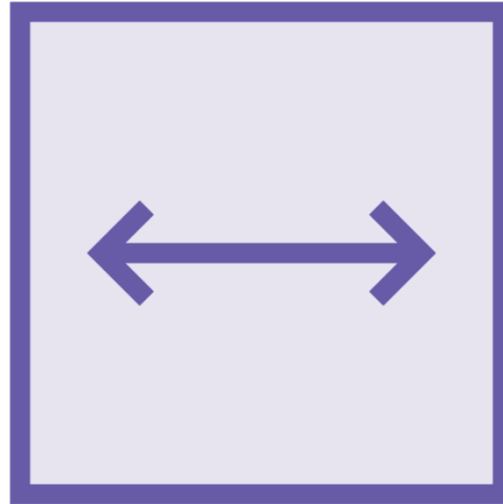
Azure resource logs must be sent to a target

Azure Diagnostic Targets



Azure Storage

Good for long term,
cheap retention



Event Hub

Good to send to
external solutions



Log Analytics

Good for storage and
analytical analysis

Sources of Diagnostics

Microsoft Azure
Active Directory



Audit
Sign-in
...

Subscription



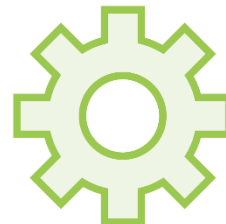
Activity Log

Resources



Metrics
Logs

Guest/Extension/
Agent



Metrics
Logs



Demo

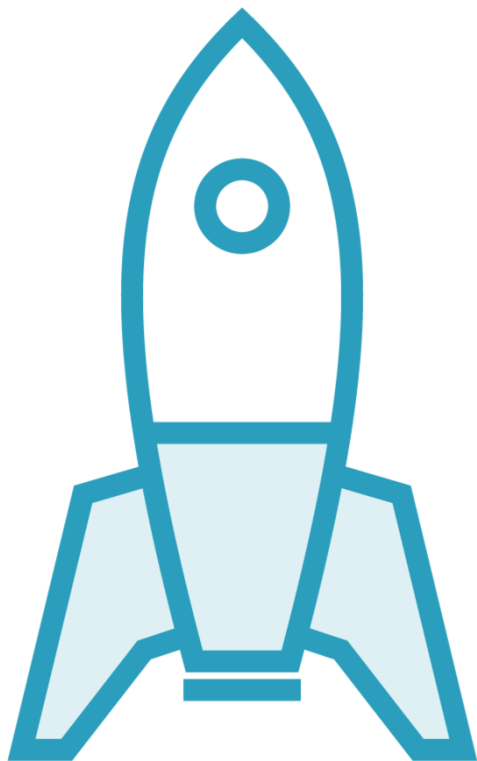


Azure Monitor Metrics

- VM
- Guest metrics
- AKS
- App Service



Key Performance Indicators



For each type of resource there are key metrics and logs that help define its overall performance health

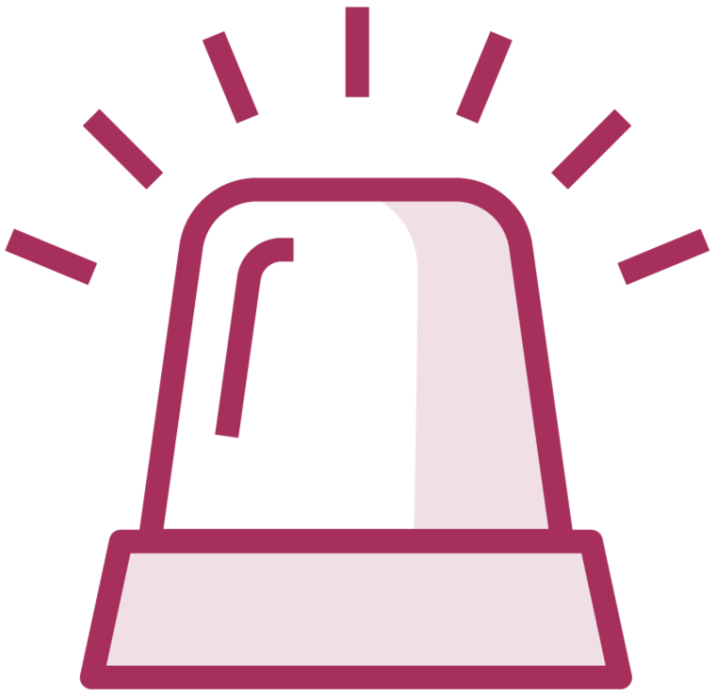
There are documents that outline some of these

Azure Monitor Insights provides the best KPIs and many include customizable workbooks

Also includes mapping for some services



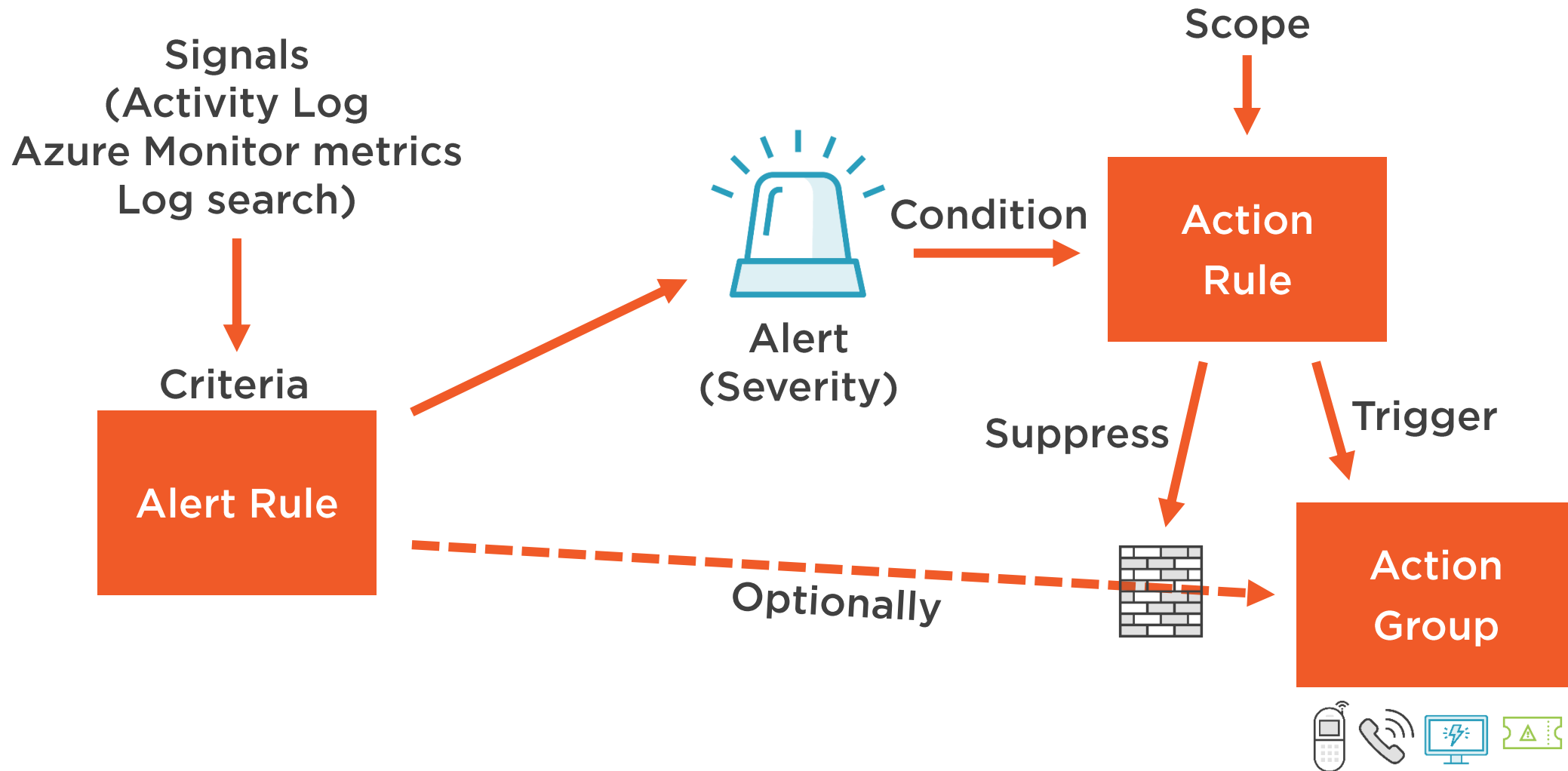
Alerting with Azure Monitor



Azure Monitor provides centralized alerting capabilities built on

- Alert rules
 - Conditions to alert with optional action group
- Action groups
 - Actions to perform
- Action rules
 - Alert conditions to trigger or suppress action group

Alerting Expanded



Summary



Azure resource metrics

Using Azure Monitor insights

Alerting with Azure Monitor



Next Up: Gathering Application Telemetry

